A Comparison of Rapists’ and Non-sex Offenders’ Sexual Preferences for Mutually Consenting Sex, Rape, and Physical Abuse of Women

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The sexual arousal patterns of 20 rapists and 10 non-sex offender patients from a maximum security psychiatric institution and 20 nonpatient volunteers were studied. Half of the volunteers were led to believe that sexual arousal to unusual stimuli was common among normal men. Subjects’ penile responses were measured to audiotaped descriptions of neutral heterosocial interactions, mutually consenting intercourse, rape, and nonsexual physical abuse of women. Rapists were significantly differentiated from the control groups on the basis of their responses to consenting sex and rape themes. Sexual arousal patterns to rape and consenting sex themes appear to be of potential use in the assessment and treatment of rapists.

The crime of rape has caused increasing concern over the past 10 years. Convicted rapists often serve lengthy prison sentences, while other rapists who have been deemed mentally ill are confined in maximum security mental hospitals. As with many sex offenders, the lack of a specific measure of the rapists’ sexual proclivities has hindered both the evaluation of various treatment interventions and the establishment of rational release policies (Abel, Blanchard, & Becker, 1976).

Considerable success has been achieved in assessing the sexual age preferences of child molesters using measures of penile expansion elicited by slides of persons who vary in age and sex (Quinsey, 1977). This type of information can be used in formulating and evaluating treatment programs, in selecting patients for treatment, and, potentially, in making release decisions regarding incarcerated child molesters. The first step in

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developing such a measure for rapists is to demonstrate that rapists’ penile responses to rape cues differentiate them from both normal men in the community and men who have been institutionalized for non-sex offenses. For a credible differentiation, the rapists studied should be “typical” and not pre-selected on the basis of their eagerness to participate in research or enthusiasm for treatment.

Abel and his associates (Abel, Barlow, Blanchard, & Guild, 1977; Abel, Becker, Blanchard, & Djenderedjian, 1978) have shown that rapists can be differentiated both from “normals” and men having other sorts of sexual problems by means of penile responses to audiotaped descriptions of consensual sexual activity and rape. A similar measurement technique has also differentiated rapists from male graduate students (Barbaree, Marshall, & Lanthier, Note 1). The importance of these demonstrations for the assessment and treatment of incarcerated rapists is difficult to overemphasize as the release of these men is fully or partially contingent upon perceived changes in their proclivities to rape.

The present study differs in some important respects from earlier research. In this study, the control groups were non-sex offender patients from the same maximum security psychiatric facility from which the rapists came and working class males from the local community. These controls thus eliminate possible effects due to institutionalization and social class. The rapists in this study were either suspected of being mentally ill at the time of trial or were involuntarily hospitalized. Thus, the rape group extends the generality of earlier findings to the mentally disordered offender population (and greatly increases the number of rapists who have been reported in published studies of this type).

This study also attempted to extend the generality of earlier work by expanding the types of stimulus situations which were included. In addition to audiotaped descriptions of neutral or non-sexual heterosocial interactions, rape scenes, and consenting sexual activity, the present study also included descriptions of situations where an adult female was severely and brutally beaten. Because the rape scenes are comprised of descriptions of (often excessive) physical force and sexual activity, the inclusion of the physical abuse scenes allow us to determine whether rapists become sexually aroused to the physical abuse dimension when presented without accompanying sexual activity. This comparison is of interest because of data (Groth, Burgess, & Holmstrom, 1977) which indicate that rape may be motivated by anger at women and the need to express power and dominance as well as by sexual desire. This work thus raises the question of whether descriptions of sexual activity are a necessary condition for obtaining sexual arousal in rapists since it may well be that rapists exhibit sexual arousal to descriptions of nonsexual physical abuse of women.

Perhaps more importantly, the present study addressed the issue of instructional set. It is well known (e.g., Quinsey & Carrigan, 1978; Quinsey & Bergersen, 1976) that many non-sex offenders can exert control over their penile responses to slides of persons varying in age and sex
in accord with experimental instructions even when the visual stimuli are accompanied by audiotaped sexual fantasies. Of even greater concern is the finding (Briddell, Rimm, Cady, Krawitz, Sholis, & Wunderlin, 1978) that normal subjects who believed they had ingested alcohol responded more to rape cues but not to descriptions of consenting intercourse than subjects who believed they had not consumed alcohol. Non-sex offenders in a testing situation where rape cues are presented may not respond only because they think such responses will be thought “abnormal.” To examine this hypothesis, a control group of non-sex offenders was led to believe that sexual arousal to “unusual” sexual cues was common and expected among non-sex offenders.

METHOD

Subjects

Four groups of subjects were employed: (a) 20 rapists, (b) 10 non-sex offender patients, (c) 10 nonpatient volunteers from the local community with regular instructions, and (d) 10 nonpatient volunteers who were instructed that sexual arousal to unusual sexual cues was normal and expected. The rapists were recruited from within the maximum security Oak Ridge Division of the Mental Health Centre in Penetanguishene, Ontario. Each rapist had committed a sexual offense against an unwilling female, sixteen years of age or older, which involved vaginal penetration. The nonrapist patients were also recruited from within Oak Ridge; none had been sent to Oak Ridge for a sexual offense, admitted to a history of sexual offending, or had any previous rape convictions or charges. Half of the non-sex offender patients were selected from each of the two treatment units from which the rapists came; no patients who had IQ’s of under 90 were accepted and none were acutely assaultive or floridly psychotic. The nonpatient volunteers were recruited through the local Canada Manpower Office, and most were unemployed at the time of the study.

The rapists in the present investigation constituted the majority of all such offenders in the institution (out of 32 there were 8 refusals and 4 eliciting uninterpretable data). Out of the 12 non-sex offender patients, there were 2 refusals. Out of the 22 nonpatient volunteers, 2 elicited uninterpretable data. Uninterpretable data were records in which there were no measurable arousal or in which neutral or non-sexual stimuli elicited greater arousal than all of the other categories. All of these latter cases involved minimal responsiveness.

The rapists averaged 26.75 (SD = 6.50) years of age and had been in Oak Ridge for an average of 12.60 (SD = 14.27) months. Eighty-five percent were diagnosed as personality disordered and 15% as psychotic. The mean age of the nonrapist patients was 31.00 (SD = 11.52) years and they had been in Oak Ridge an average of 25.70 (SD = 24.59) months.
Fifty percent were diagnosed as personality disordered and 50% as psychotic. The community volunteers were selected to be between 18 and 30 years of age but their ages were not recorded.

Apparatus

Subjects were seated in a reclining chair located in a sound attenuated and electrically shielded room equipped with a one-way mirror and intercom. Skin resistance was recorded but not scored. Penile responses were measured using a mercury in rubber strain gauge which the subject fitted on the shaft of his penis. The strain gauge was periodically calibrated with cylinders of known circumference and the relationship between circumference and deflection was found to be linear within the working range of the gauge. The leads from the gauge were connected to a Parks Electronics Model 270 Plethysmograph. Penile responses were recorded at two levels of amplification on a Beckman R511A Dynograph. Auditory stimuli were presented by a programmable tape recorder through a speaker in the subject’s chamber. All programming and recording equipment was located outside the subject’s chamber.

Instructions

Rapists were instructed that we were interested in finding an assessment technique which might be helpful in treating Oak Ridge sex offenders. Non-sex offenders were told the same, but it was added that we had to find out how non-sex offenders reacted to our procedure. Patients were paid $1.00 for participating, and nonpatients $5.00 for their participation. Complete confidentiality was promised to all subjects save nine rapists who had been remanded by the courts for a psychiatric examination. After a brief explanation of the apparatus, all subjects were told: “During this session, which will last approximately one hour, you will hear a number of situations described on tape. I want you to listen closely to what is said and imagine you are the person saying it.”

Subjects in the altered instruction group were given these additional instructions:

Previous research in our laboratory has clearly shown that normal males become sexually aroused to descriptions of sexual situations that they have never encountered in their own lives. In fact, most men will become aroused to sexual situations they have never even imagined in their fantasies. Do not then be surprised if you do become sexually aroused by situations that you don’t ordinarily consider to be “sexy.”

The instructions were read and all testing was performed by one of two male research assistants who each ran approximately half of the subjects in each group.
Stimuli and Procedure

There were 18 audiotaped situations which were each narrated by a
male in the first person, past tense. Of these, three were neutral nar-
atives which involved non-sexual and nonaggressive heterosocial inter-
actions; one of these, for example, involved a man arranging for an airplane
flight to Florida with a female travel agent. Five narratives involved fore-
play and sexual intercourse with a willing spouse or girlfriend; these
narrations were very explicit and described the setting, the sexual behav-
iors, the female's figure, sexual arousal and behavior, etc. There were five
rape narratives in which significant force was used in achieving inter-
course with an unwilling female stranger. The rape narratives described
the female's appearance, the sexual acts involved, the female's attempts
at resistance, and the man's physical overpowering of the victim. The
following gives the flavor of the rape narratives:

I tackle her from behind. Rolling her over I slap her face a couple of times which
only temporarily stops her hysterical screaming. More determined than ever, I rip
her dress to shreds, leaving her completely naked on the ground. As she moans in
pain I force her to get on her hands and knees and in this position I lift her ass
high and push her face into the ground. Completely degraded, she doesn't move
as I drive my hard cock mercilessly into her.

An additional five narratives involved no sexual activity but described a
woman receiving a beating and being physically hurt. The following ex-
ample comes from a narrative describing the mugging of a passing
woman:

I run after her, catching her from behind. She screams in terror, fighting to free
herself from my grasp until she falls. I grab her by the back of her head and grind
her face into the ground. That will shut her up. I squeeze her by the throat. My
fingers tightly together, not allowing her a single breath. Standing over her pro-
strate body, I kick her several times as hard as I can.¹

The narratives were presented in the same order to all subjects, an
order that had been randomly determined with the restriction that no
more than two stimuli from the same category could be immediately
adjacent. Narrative length ranged from 68 sec. to 128 sec. with most
narratives being approximately 100 sec. long. The differences between
the average lengths of the narrations were small and there was no relation
between average narration length within a category and average response
magnitudes to the categories. The interstimulus intervals ranged from 40
to 83 sec; but, when necessary, the next stimulus was delayed until the
subject's penile response had returned to baseline. Because penile re-
sponses have long durations, the magnitude of the largest penile response
occurring in the 2–135 sec. period following narrative onset was recorded.

¹Full transcripts of the scenes are available from the senior author.
The minimum times between scoring intervals varied between 13 and 45 sec.

Treatment of the Data

Each subject's responses were analyzed in 3 forms: raw scores, z scores (based upon all of his responses during the session), and the rape index. The raw and z scores were averaged within a stimulus category for each subject prior to analysis of variance. The rape index was calculated, following Abel et al. (1977), by dividing the mean raw score to the rape narratives by the mean raw score of the consenting sex narratives for each subject. It was predicted that the rapists would show greater arousal to the rape and physical abuse cues and less to the consenting sex narratives than each of the other groups. In the raw score data, the planned comparisons were evaluated against the “within-cell” error term as recommended by Winer (1971, p. 530). In the z score data, the planned comparisons were evaluated using the subject times stimulus category within groups error term since the z score conversion removed the variance between subjects.

RESULTS

The raw and z score data are presented in Figure 1. In both the raw and z score data, there was a strong effect of stimulus category. $F(3, 138) = 52.42$ and 104.92, $p < .001$, respectively; and a significant group by stimulus category interaction $F(9, 138) = 3.75$ and 4.17, $p < .001$, respectively.

Turning to an examination of the hypotheses, planned comparisons using the raw score data indicated that the rapists responded more to the rape narratives than the non-sex offender patients, $F(1, 56) = 5.88$, $p < .025$, and the community subjects with normal instructions. $F(1, 56) = 15.42$, $p < .001$, but not the altered instructions group ($p > .20$). Similarly, in the z score data, the rapists responded more to the rape cues than the other patients, $F(1, 138) = 10.68$, $p < .005$, and community subjects, $F(1, 138) = 21.72$, $p < .001$, but not community subjects with altered instructions, $F(1, 138) = 3.20$, $p < .10$.

The raw score data indicated that the rapists did not respond less to the consenting sex cues than the community or non-sex offender patient groups (see Figure 1) or the altered instruction group, $F(1, 56) = 3.41$, $p < .10$. On the other hand, the z score data showed that the rapists were less responsive to the consenting sex narrations than the community subjects with altered instructions, $F(1, 138) = 3.97$, $p < .05$. The consenting sex theme did not differentiate the community subjects, $F(1, 138) = 3.54$, $p < .10$, or the non-sex offender patients, $F(1, 138) = 2.18$, $p < .20$, from the rapists in the z score data. It was of interest that the rapists were the only group to respond more to the rape than to the consenting sex cues, although the comparison of these categories within the rapist group did not approach significance.
Fig. 1 Mean penile response raw scores (upper panel) and z scores (lower panel) for the rapists, nonrapist patients (NRP), community subjects with normal instructions (CNI), and community subjects with altered instructions (CAI) as a function of audiotape category.
Contrary to predictions, there were no significant differences among the groups in their responses to the physical abuse narratives.

An analysis of the rape index data clarified the relative responsiveness of the groups to the rape and consenting sex narratives. There was a significant effect of group assignment, $F(3, 46) = 5.58, p < .005$. As predicted, the rapists had higher rape indices than the non-sex offender patients, $F(1, 46) = 8.59, p < .01$, the community subjects, $F(1, 46) = 12.77, p < .001$, and the altered instructions group, $F(1, 46) = 5.21, p < .05$. The mean rape index was 1.28 for the rapists, and .63 for the nonrapists. By choosing a cut-off index of .80, 80% of the rapists and 73% of the nonrapists would be correctly classified. With a cut-off index of 1.0, 60% of the rapists and 80% of the nonrapists would be correctly classified.

In order to clarify further the above results, several supplementary $t$-tests were calculated. The first concern was whether rapists not promised confidentiality would appear less deviant than those promised confidentiality, an important issue for those working with confined offenders. A comparison of the rape indices of the 9 rapists who had not been promised confidentiality with those of the remaining eleven, however, did not approach statistical significance ($p > .10$). Because some of the patients were receiving phenothiazines at the time of testing, it was possible that their overall responsiveness would be diminished. A comparison of mean penile responses of the 6 patients receiving phenothiazines with the 24 who were not also revealed no significant difference ($p > .10$).

An additional question related to the difference between the two community groups. An ad hoc analysis indicated that the altered instructional group responded more to the two stimulus categories involving sexual behavior than the community subjects with normal instructions in the raw score data, $F(1, 138) = 71.31; p < .05$ with Scheffé’s adjusted criterion. However, the difference between these two groups did not approach significance in the rape index data, indicating that the instructions had an effect, but that they exerted no differential effect on the responses to the rape and consenting sex themes.

**DISCUSSION**

In comparison to nonrapists, the rapists were found to show relatively greater sexual arousal to rape themes than to consenting sex themes. This difference in relative responsiveness to the two sexual themes between rapists and nonrapists was maintained where a group of normal subjects was led to believe that sexual responsiveness to unusual themes was expected in our testing situation. Even though these community subjects responded more to both sexual themes than other subjects recruited from the community, they were still differentiable from the rapists in terms of their relative responsiveness to rape and consenting sex cues.

Contrary to predictions, the rapists did not differ from the controls in their responsiveness to narratives describing non-sexual physical abuse of women. We had expected such a differentiation both because of Groth et
al.'s typology of rapists (1977) and because of a sizable number of our rape group appeared to have used a great deal more force than necessary in the rape of their victims. We had, in fact, originally attempted to assign our rapists to sadistic and nonsadistic groups. This effort was abandoned when we found we could not reliably perform this discrimination. It is of course true that individuals who have well-developed sadistic fantasies show marked sexual arousal to these specific themes, and the most likely interpretation of our null finding is that our narrations failed to capture the idiosyncratic nature(s) of these themes.

The results of this study strongly encourage the use of the rape index in the assessment of rapists for the purposes of research and treatment, particularly inasmuch as it differentiated the altered instruction group from the rapists. With respect to assessment, the index is, of course, far from infallible; but, given that a person has committed a rape, it provides valuable information relevant to the planning and evaluation of a treatment intervention. As far as future research, the question of whether the rapists who were misclassified represent errors of measurement or whether the majority of them have appropriate sexual preferences and may have raped for other reasons appears well worth pursuing. Other studies may relate posttreatment rape indices to recidivism.

REFERENCE NOTE

REFERENCES

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